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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/782,938	02/23/2004	Shinya Suzuki	016886-0192	7660

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3000 K STREET NW
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EXAMINER	
BUI, BING Q	

ART UNIT	PAPER NUMBER
2642	

DATE MAILED: 06/07/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/782,938	SUZUKI ET AL.	
	Examiner	Art Unit	
	Bing Q. Bui	2642	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *23 February 2004*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *20* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-3,6-11 and 14-20* is/are rejected.

7)☒ Claim(s) *4,5,12 and 13* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *23 February 2004* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☒ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *2/23/04 & 6/17/04* .
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

1. Claims 1-20 are pending in the application for examination, wherein claims 1, 10, 17 and 20 being independent.

Priority

2. Acknowledgment is made of applicant's claim for foreign priority based on an application filed in US on 2/23/04. It is noted, however, that applicant has not filed a certified copy of the JAPAN 10-272271 and JAPAN 11-240524 application as required by 35 U.S.C. 119(b).

Claim Objections

3. Claims 1-2, 10 and 20 are objected to because of the following informalities:

As to claim 1, in lines 5-6, the phrase [wherein: .....comprises;] should be deleted and replaced with new phrase -- wherein said communication apparatus comprises: --.

As to claim 2, in lines 1-2, the phrase [wherein: .....comprises;] should be deleted and replaced with new phrase -- wherein said opposite-side communication apparatus comprises: --.

As to claim 10, in lines 3-4, the phrase [wherein: .....comprises;] should be deleted and replaced with new phrase -- wherein said communication

apparatus comprises: --; and in line 15, character [;] preceded by the word "comprises" should be deleted and replaced with character -- : --.

As to claim 20, in lines 5-6, the phrase [wherein: .....comprises;] should be deleted and replaced with new phrase -- wherein said communication apparatus comprises: --.

Appropriate correction is required.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 1-3, 6-11 and 14-20 are rejected under 35 U.S.C. 102(b) as being anticipated by Katagawa (US Pat No. 5,010,569) cited in Applicant's IDS.

Regarding claim 1, referring to figures 1 and 2(a)-(b), Katagawa teaches a communication system comprising a communication apparatus connected to a voice terminal apparatus and an opposite side communication apparatus connected to an opposite-side voice terminal apparatus, and making said communication apparatus and said opposite-side communication apparatus communicate with each other through a communication channel, wherein said communication apparatus comprises:

a voice coding unit for code-compressing a voice signal from said voice terminal

apparatus and thereby generating voice information (see figures 1 and 2(a)-(b); and col. 5, ln 3-col. 7, ln 43),

a DTMF detecting unit for detecting a DTMF signal from a voice signal from said voice terminal apparatus (see figures 1 and 2(a)-(b); and col. 5, ln 3-col. 7, ln 43),

a DTMF coding unit for, when this DTMF detecting unit has detected a DTMF signal, generating DTMF information by coding a DTMF signal into a specified form (see figures 1 and 2(a)-(b); and col. 5, ln 3-col. 7, ln 43), and

an information outputting unit for outputting voice information generated by said voice coding unit and/or DTMF information generated by said DTMF coding unit to said communication channel (see figures 1 and 2(a)-(b); and col. 5, ln 3-col. 7, ln 43).

Regarding claim 2, referring to figures 1 and 2(a)-(b), Katagawa teaches the communication system according to claim 1, wherein said opposite-side communication 'apparatus comprises:

an opposite-side voice decoding unit for, when it has received voice information from said communication apparatus through said communication channel, decoding said voice information and thereby generating a voice signal (see figures 1 and 2(a)-(b); and col. 5, ln 3-col. 7, ln 43),

an opposite-side DTMF information detecting unit for detecting that it has received DTMF information from said communication apparatus through said communication channel (see figures 1 and 2(a)-(b); and col. 5, ln 3-col. 7, ln 43),

an opposite-side DTMF decoding unit for, when this opposite side DTMF information detecting unit has detected DTMF information, decoding this DTMF

information and thereby generating the content of DTMF (see figures 1 and 2(a)-(b); and col. 5, ln 3-col. 7, ln 43),

an opposite-side DTMF signal generating unit for generating a DTMF signal on the basis of the content of DTMF generated by this opposite-side DTMF decoding unit (see figures 1 and 2(a)-(b); and col. 5, ln 3-col. 7, ln 43), and

an opposite-side voice outputting unit for making said opposite side voice terminal apparatus voice-output a voice signal generated by said opposite-side voice decoding unit and/or a DTMF signal generated by said opposite side DTMF signal generating unit (see figures 1 and 2(a)-(b); and col. 5, ln 3-col. 7, ln 43).

Regarding claim 3, referring to figures 1 and 2(a)-(b), Katagawa teaches the communication system according to claim 1, wherein said DTMF detecting unit has a DTMF signal monitoring unit for monitoring that said DTMF signal has been detected continuously for a predetermined time or longer and, when this DTMF signal monitoring unit has continuously detected said DTMF signal, judges that it has detected said DTMF signal from said voice signal (see figures 1 and 2(a)-(b); and col. 5, ln 3-col. 7, ln 43).

Regarding claim 6, referring to figures 1 and 2(a)-(b), Katagawa teaches the communication system according to claim 1, wherein said DTMF information has a header portion indicating destination information and a payload portion containing DTMF code information indicating the code of said DTMF signal and signal detecting time information indicating the time of detecting this DTMF signal (see figures 1 and 2(a)-(b); and col. 5, ln 3-col. 7, ln 43).

Regarding claim 7, referring to figures 1 and 2(a)-(b), Katagawa teaches the communication system according to claim 6, wherein:

said DTMF detecting unit has a measuring unit for measuring the signal detecting time of said DTMF signal and an analyzing unit for analyzing the code of said DTMF signal (see figures 1 and 2(a)-(b); and col. 5, ln 3-col. 7, ln 43), and

said DTMF coding unit, when said DTMF signal has been detected continuously for a predetermined time or longer, generates said signal detecting time information on the basis of the result of measurement of said measuring unit, generates said DTMF code information on the basis of the result of analysis of said analyzing unit, and generates said DTMF information including these signal detecting time information and DTM code information (see figures 1 and 2(a)-(b); and col. 5, ln 3-col. 7, ln 43).

Regarding claim 8, referring to figures 1 and 2(a)-(b), Katagawa teaches the communication system according to claim 2, wherein said DTMF information has a header portion indicating destination information and a payload portion containing DTMF code information indicating the code of said DTMF signal and signal detecting time information indicating the time of detecting this DTMF signal (see figures 1 and 2(a)-(b); and col. 5, ln 3-col. 7, ln 43).

Regarding claim 9, referring to figures 1 and 2(a)-(b), Katagawa teaches the communication system according to claim 8, wherein:

said opposite-side DTMF decoding unit decodes said DTMF information and

thereby generates the content of DTMF containing said DTMF code information and signal detecting time information (see figures 1 and 2(a)-(b); and col. 5, ln 3-col. 7, ln 43), and

said opposite-side DTMF signal generating unit generates said DTMF signal on the basis of DTMF code information and signal detecting time information of the content of DTMF generated by said opposite-side DTMF decoding unit (see figures 1 and 2(a)-(b); and col. 5, ln 3-col. 7, ln 43).

Regarding claim 10, referring to figures 1 and 2(a)-(b), Katagawa teaches a communication system in which a communication apparatus and an opposite-side communication apparatus are connected to each other through a communication channel, wherein said communication apparatus comprises (see figures 1 and 2(a)-(b); and col. 5, ln 3-col. 7, ln 43);

a voice coding unit for code-compressing a voice signal received from a terminal apparatus and thereby generating voice information (see figures 1 and 2(a)-(b); and col. 5, ln 3-col. 7, ln 43),

a DTMF detecting unit for detecting that a voice signal received from said terminal apparatus is a DTMF signal (see figures 1 and 2(a)-(b); and col. 5, ln 3-col. 7, ln 43),

a DTMF coding unit for, when this DTMF detecting unit has detected the DTMF signal, coding a DTMF signal into a specified form and thereby generating DTMF information (see figures 1 and 2(a)-(b); and col. 5, ln 3-col. 7, ln 43), and

an information outputting unit for outputting voice information generated by

said voice coding unit and/or DTMF information generated by said DTMF coding unit to said communication channel (see figures 1 and 2(a)-(b); and col. 5, ln 3-col. 7, ln 43); and

said opposite-side communication apparatus comprises;

a voice decoding unit for, when voice information from said communication apparatus has been received through said communication channel, decoding this voice information and thereby generating a voice signal (see figures 1 and 2(a)-(b); and col. 5, ln 3-col. 7, ln 43),

a DTMF information detecting unit for detecting DTMF information from said communication apparatus through said communication channel (see figures 1 and 2(a)-(b); and col. 5, ln 3-col. 7, ln 43),

a DTMF decoding unit for, when this DTMF information detecting unit has detected DTMF information, decoding this DTMF information and thereby generating the content of DTMF (see figures 1 and 2(a)-(b); and col. 5, ln 3-col. 7, ln 43),

a DTMF signal generating unit for generating said DTMF signal on the basis of the content of DTMF generated by this DTMF decoding unit (see figures 1 and 2(a)-(b); and col. 5, ln 3-col. 7, ln 43), and

a voice outputting unit for voice-outputting a voice signal generated by said voice decoding unit or a DTMF signal generated by said DTMF signal generating unit to an opposite-side terminal apparatus (see figures 1 and 2(a)-(b); and col. 5, ln 3-col. 7, ln 43).

Regarding claim 11, referring to figures 1 and 2(a)-(b), Katagawa teaches the communication system according to claim 10, wherein said DTMF detecting unit has a DTMF signal monitoring unit for monitoring whether or not it has detected said DTMF signal continuously for a predetermined time or longer and, when this DTMF signal monitoring unit judges that it has continuously detected said DTMF signal, judges that it has detected said DTMF signal from said terminal apparatus (see figures 1 and 2(a)-(b); and col. 5, ln 3-col. 7, ln 43).

Regarding claim 14, referring to figures 1 and 2(a)-(b), Katagawa teaches the communication system according to claim 10, wherein said DTMF information has a header portion indicating destination information and a payload portion containing DTMF code information indicating the code of said DTMF signal and signal detecting time information indicating the signal detecting time of this DTMF signal (see figures 1 and 2(a)-(b); and col. 5, ln 3-col. 7, ln 43).

Regarding claim 15, referring to figures 1 and 2(a)-(b), Katagawa teaches the communication system according to claim 14, wherein:

said DTMF detecting unit has a measuring unit for measuring the signal detecting time of said DTMF signal from said terminal apparatus and an analyzing unit for analyzing the code of said DTMF signal (see figures 1 and 2(a)-(b); and col. 5, ln 3-col. 7, ln 43), and

said DTMF coding unit, when said DTMF signal from said terminal apparatus has been detected continuously for a predetermined time or longer, generates said signal detecting time information on the basis of the result of measurement of said measuring

unit, generates said DTMF code information on the basis of the result of analysis of said analyzing unit, and generates said DTMF information including these signal detecting time information and DTM code information (see figures 1 and 2(a)-(b); and col. 5, ln 3-col. 7, ln 43).

Regarding claim 16, referring to figures 1 and 2(a)-(b), Katagawa teaches the communication system according to claim 14, wherein:

said DTMF decoding unit decodes said DTMF information and thereby generates the content of DTMF containing said DTMF code information and signal detecting time information (see figures 1 and 2(a)-(b); and col. 5, ln 3-col. 7, ln 43), and

said DTMF signal generating unit generates said DTMF signal on the basis of DTMF code information and signal detecting time information of the content of DTMF generated by said DTMF decoding unit (see figures 1 and 2(a)-(b); and col. 5, ln 3-col. 7, ln 43).

Regarding claim 17, referring to figures 1 and 2(a)-(b), Katagawa teaches a communication method of a communication system comprising a communication apparatus connected to a terminal apparatus and an opposite-side communication apparatus connected to an opposite-side terminal apparatus, and making said communication apparatus and said opposite-side communication apparatus communicate with each other through a communication channel, said method comprising the steps of :

code-compressing a voice signal received from said terminal apparatus and

thereby generating voice information (see figures 1 and 2(a)-(b); and col. 5, ln 3-col. 7, ln 43),

detecting that a voice signal received from said terminal apparatus is a DTMF signal (see figures 1 and 2(a)-(b); and col. 5, ln 3-col. 7, ln 43),

coding this DTMF signal in a specified form when this DTMF signal has been detected and thereby generating DTMF information (see figures 1 and 2(a)-(b); and col. 5, ln 3-col. 7, ln 43), and

outputting said voice information and/or said DTMF information to said communication channel (see figures 1 and 2(a)-(b); and col. 5, ln 3-col. 7, ln 43).

Regarding claim 18, referring to figures 1 and 2(a)-(b), Katagawa teaches the communication method according to claim 17, further comprising the steps of:

decoding voice information when said voice information has been received from said communication apparatus through said communication channel and thereby generating a voice signal (see figures 1 and 2(a)-(b); and col. 5, ln 3-col. 7, ln 43),

detecting that DTMF information has been received from said communication apparatus through said communication channel (see figures 1 and 2(a)-(b); and col. 5, ln 3-col. 7, ln 43),

decoding this DTMF information when this DTMF information has been detected and thereby generating the content of DTMF (see figures 1 and 2(a)-(b); and col. 5, ln 3-col. 7, ln 43),

generating said DTMF signal on the basis of the content of DTMF generated (see figures 1 and 2(a)-(b); and col. 5, ln 3-col. 7, ln 43), and

making said opposite-side terminal apparatus voice-output said voice signal and/or said DTMF signal decoded (see figures 1 and 2(a)-(b); and col. 5, ln 3-col. 7, ln 43).

Regarding claim 19, referring to figures 1 and 2(a)-(b), Katagawa teaches the communication method according to claim 18, performing in order the steps of:

code-compressing a voice signal received from said opposite-side terminal apparatus and thereby generating voice information (see figures 1 and 2(a)-(b); and col. 5, ln 3-col. 7, ln 43),

detecting that a voice signal received from said opposite-side terminal apparatus is a DTMF signal (see figures 1 and 2(a)-(b); and col. 5, ln 3-col. 7, ln 43),

coding this DTMF signal into a specified form when this DTMF signal has been detected and thereby generating DTMF information (see figures 1 and 2(a)-(b); and col. 5, ln 3-col. 7, ln 43), and

outputting said coded DTMF information and/or voice information to said communication channel (see figures 1 and 2(a)-(b); and col. 5, ln 3-col. 7, ln 43); and

performing in order the steps of:

decoding voice information when this voice information has been received from said opposite-side communication apparatus through said communication channel and thereby generating a voice signal (see figures 1 and 2(a)-(b); and col. 5, ln 3-col. 7, ln 43),

detecting that voice information received from said opposite-side communication apparatus through said communication channel is DTMF information (see figures 1 and 2(a)-(b); and col. 5, ln 3-col. 7, ln 43),

decoding this DTMF information when this DTMF information has been detected and thereby generating the content of DTMF (see figures 1 and 2(a)-(b); and col. 5, ln 3-col. 7, ln 43),

generating said DTMF signal on the basis of the content of DTMF generated (see figures 1 and 2(a)-(b); and col. 5, ln 3-col. 7, ln 43), and

voice-outputting a decoded voice signal and/or DTMF signal or said voice signal to said terminal apparatus (see figures 1 and 2(a)-(b); and col. 5, ln 3-col. 7, ln 43).

Regarding claim 20, referring to figures 1 and 2(a)-(b), Katagawa teaches a communication system comprising a communication apparatus connected to a voice terminal apparatus and an opposite-side communication apparatus connected to an opposite-side voice terminal apparatus, and making said communication apparatus and said opposite-side communication apparatus communicate with each other through a communication channel, wherein said communication apparatus comprises:

a voice code compressing portion for voice-code-compressing a voice signal from said voice terminal apparatus (see figures 1 and 2(a)-(b); and col. 5, ln 3-col. 7, ln 43),

a voice cell generating portion for generating a voice cell by converting a voice signal voice-code compressed by this voice code compressing portion into a cell (see figures 1 and 2(a)-(b); and col. 5, ln 3-col. 7, ln 43),

a DTMF signal detecting portion for detecting whether or not a DTMF signal is contained in a voice signal from said voice terminal apparatus and outputting this content of detection as a first DTMF detection signal (see figures 1 and 2(a)-(b); and col. 5, ln 3-col. 7, ln 43),

a DTMF signal monitoring portion for, when the first DTMF detection signal from this DTMF signal detecting portion has been detected, generating signal detecting time information and code information of a DTMF signal and outputting the content of DTMF including these signal detecting time information and DTMF code information as a second DTMF detecting signal (see figures 1 and 2(a)-(b); and col. 5, ln 3-col. 7, ln 43),

a DTMF cell generating portion for generating a DTMF cell by generating DTMF information on the basis of the first DTMF detection signal from said DTMF signal detecting portion and the second DTMF detection signal from said DTMF signal monitoring portion and converting this DTMF information into a cell (see figures 1 and 2(a)-(b); and col. 5, ln 3-col. 7, ln 43), and

a cell multiplexing portion for outputting said voice cell or said DTMF cell to said communication channel (see figures 1 and 2(a)-(b); and col. 5, ln 3-col. 7, ln 43).

Allowable Subject Matter

6. Claims 4-5 and 12-13 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Bing Bui whose telephone number is (571) 272-7482. The examiner can normally be reached on Monday through Thursday from 7:30 to 5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ahmad Matar, can be reached on (571) 272-7488. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306 and for formal communications intended for entry (please label the response □EXPEDITED PROCEDURE□) or for informal or draft communications not intended for entry (please label the response "PROPOSED" or "DRAFT").

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-4700.

24 May 2005

BING Q. BUI
PRIMARY EXAMINER